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\* Definition for a binary tree node.

\* struct TreeNode {

\* int val;

\* TreeNode \*left;

\* TreeNode \*right;

\* TreeNode(int x) : val(x), left(NULL), right(NULL) {}

\* };

\*/

class Solution {

public:

TreeNode\* build(vector<int> &in, vector<int> &pre, int l, int r, int &pre\_idx){

if(l > r){

return NULL;

}

int idx, i;

for(i = 0; i < in.size(); i++){

if(in[i] == pre[pre\_idx]){

idx = i;

break;

}

}

TreeNode \*root = new TreeNode(pre[pre\_idx++]);

if(l == r){

return root;

}

root->left = build(in, pre, l, idx-1, pre\_idx);

root->right = build(in, pre, idx+1, r, pre\_idx);

return root;

}

TreeNode\* bstFromPreorder(vector<int>& preorder) {

if(preorder.size() == 0){

return NULL;

}

vector<int> inorder(preorder);

sort(inorder.begin(), inorder.end());

int pre\_idx = 0;

return build(inorder, preorder, 0, inorder.size() -1, pre\_idx);

}

};